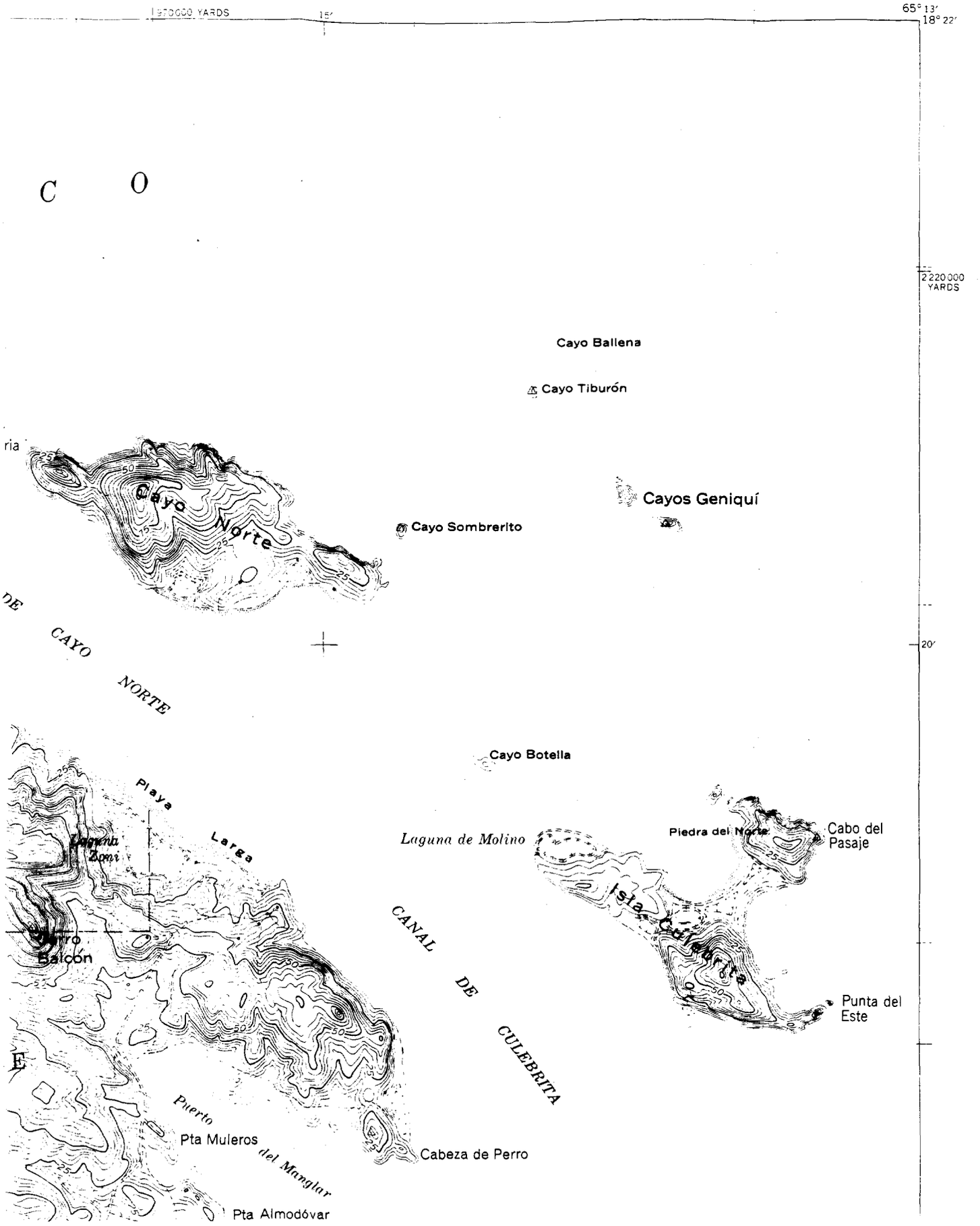
PUERTO RICO

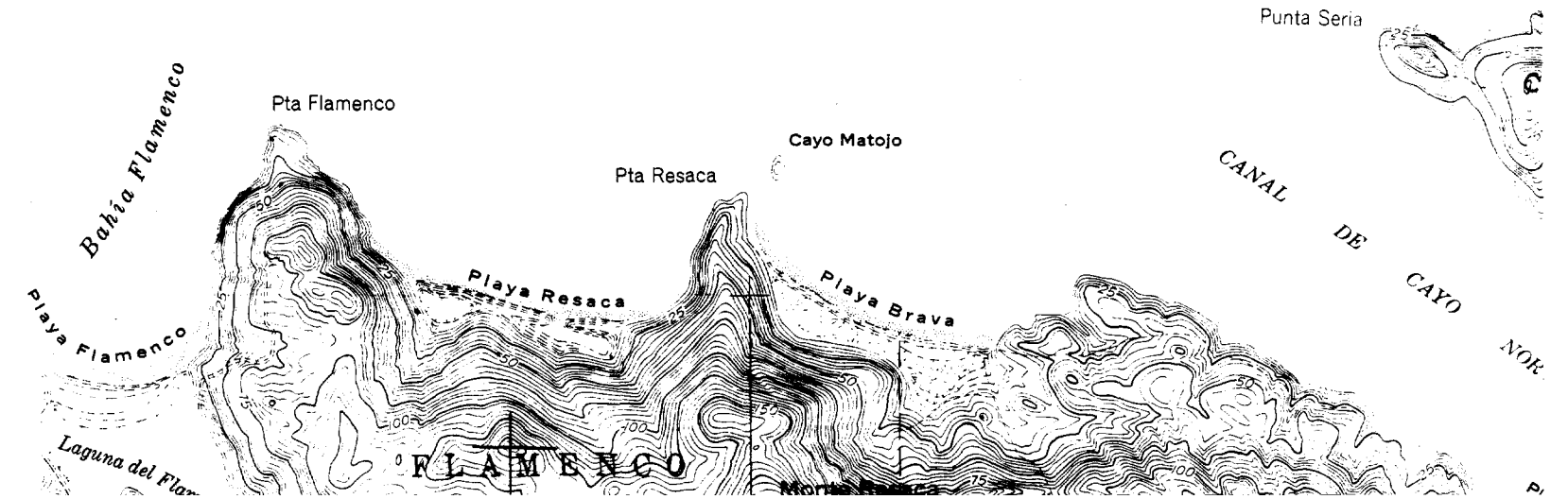
CULEBRA AND ADJACENT ISLANDS

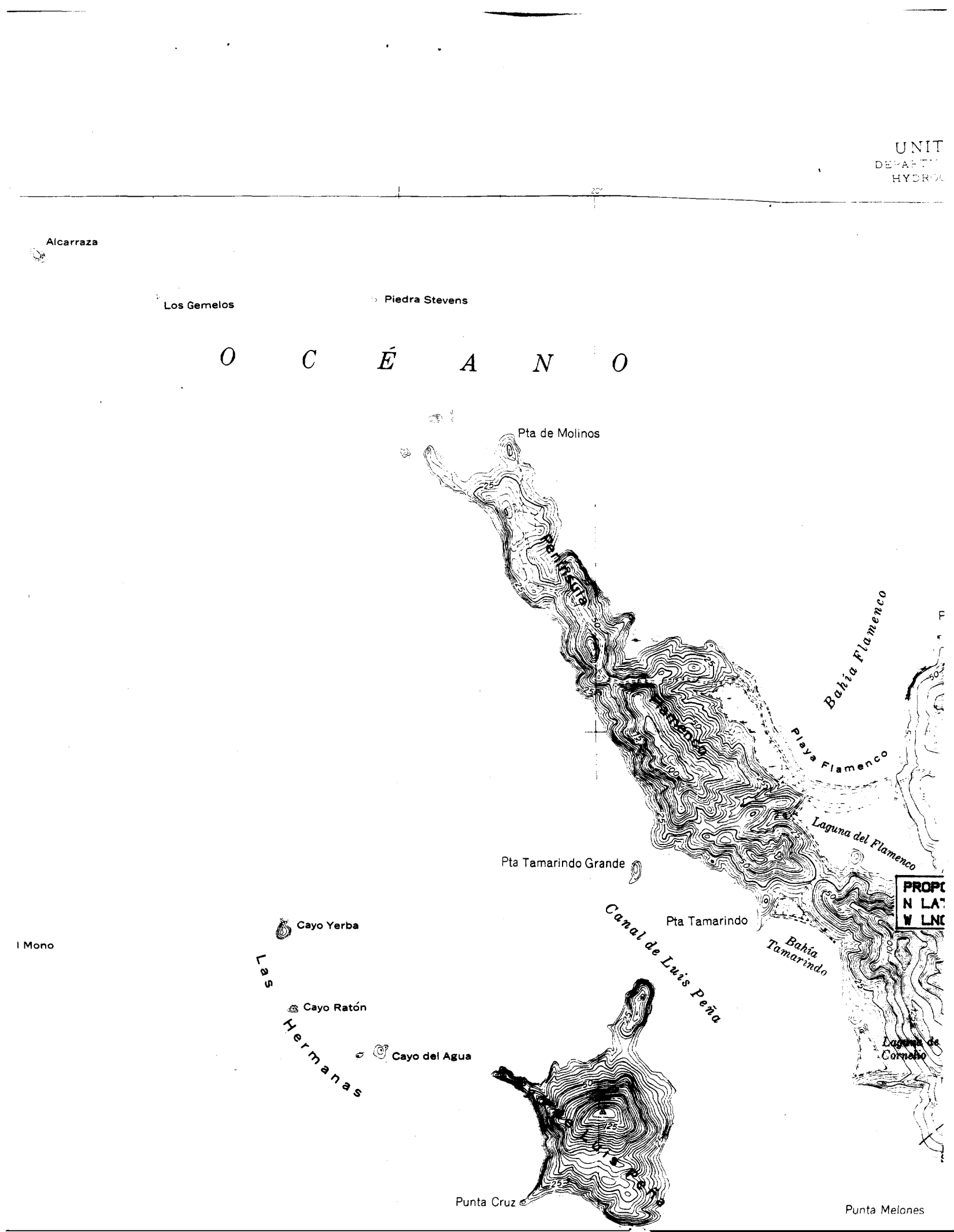


UNITED STATES
DEPARTMENT OF THE NAVY
HYDROGRAPHIC OFFICE

17°30'

A T L Á N T I C O




UNIT
Alcarraza
Los Gemelos
Piedra Stevens
O C É A N O
Pta de Molinos
Península
Bahía Flamenco
Playa Flamenco
Laguna del Flamenco
Pta Tamarindo Grande
Pta Tamarindo
Bahía Tamarindo
Canal de Luis Peña
Cayo Yerba
Las Hermanas
Cayo Ratón
Cayo del Agua
I Mono
Punta Cruz
Punta Melones

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

65° 24′
18° 22′
262 000 METERS
22′30″
Alcarraza
Los Gemelos
O C
58 000
METERS
Cayo Lobito
20′
Cayo Lobo
El Mono
Cayo Yeri
Las
Cayo Ra
Herman

Cayo Rat

Hermana

17'30"

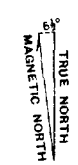
2 210 000 YARDS

18° 16'
65° 24'

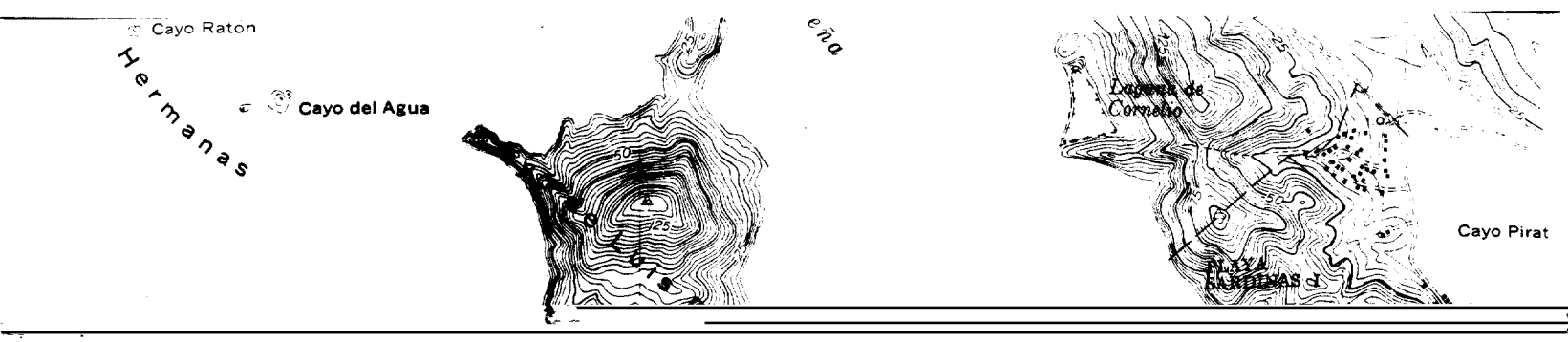
955 000 YARDS

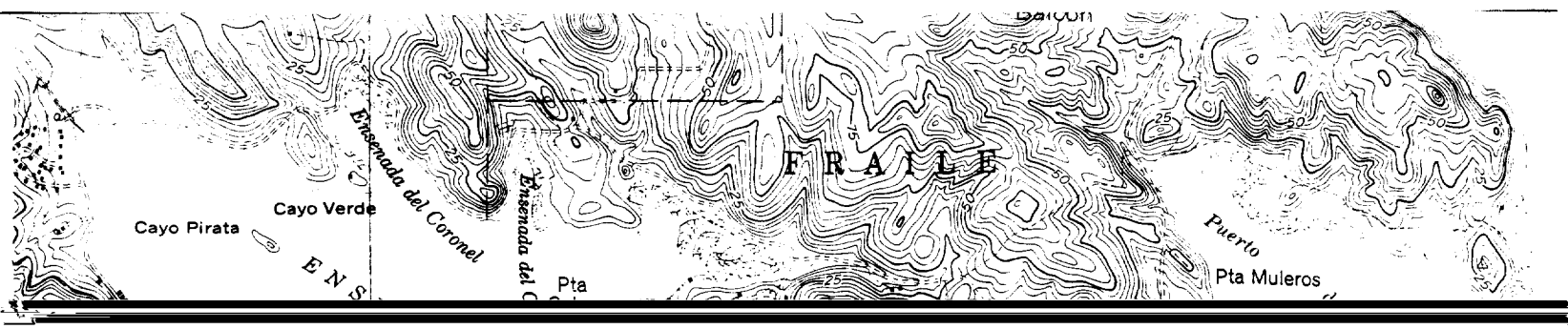
22'30"

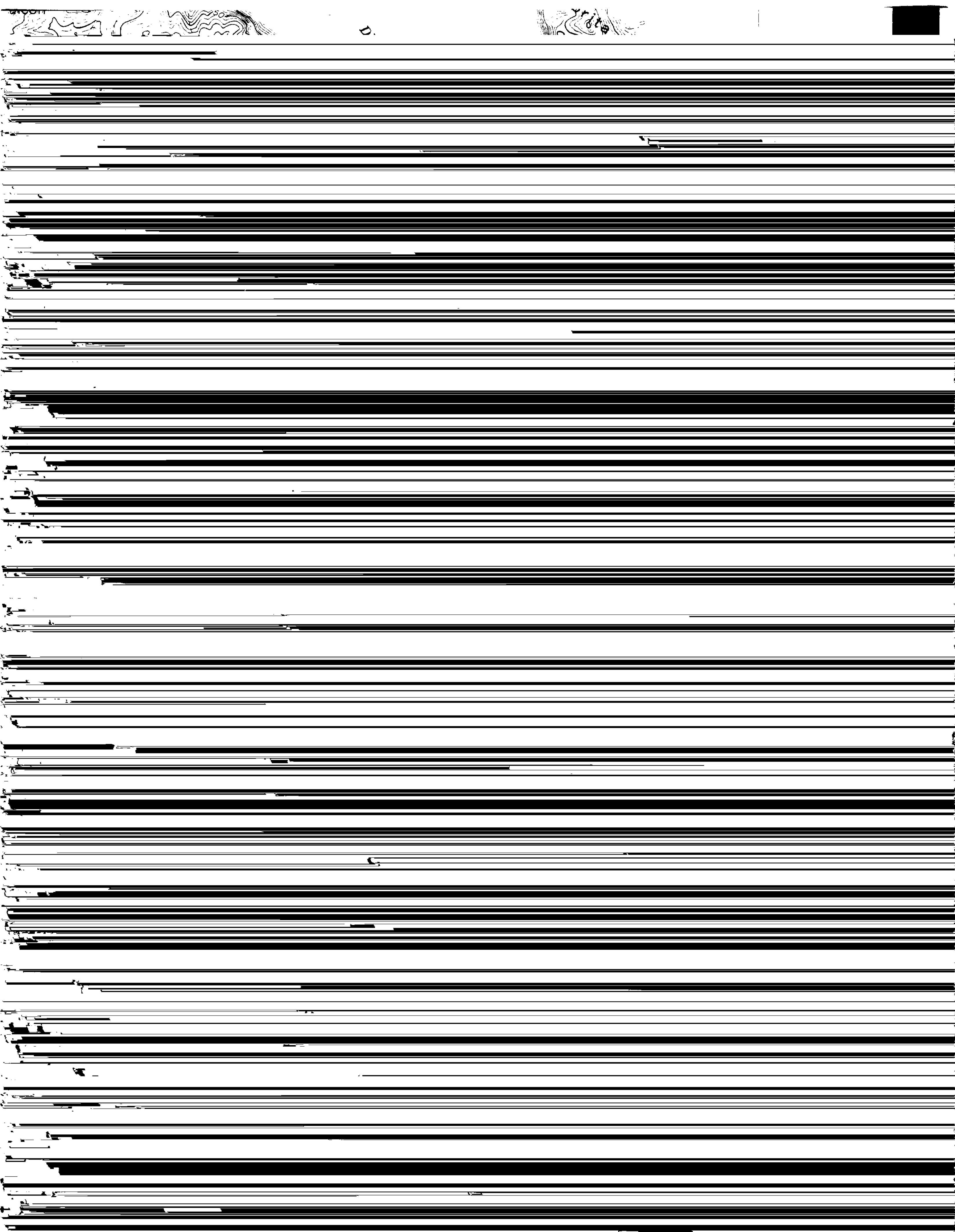
Mapped by the Geological Survey
1948

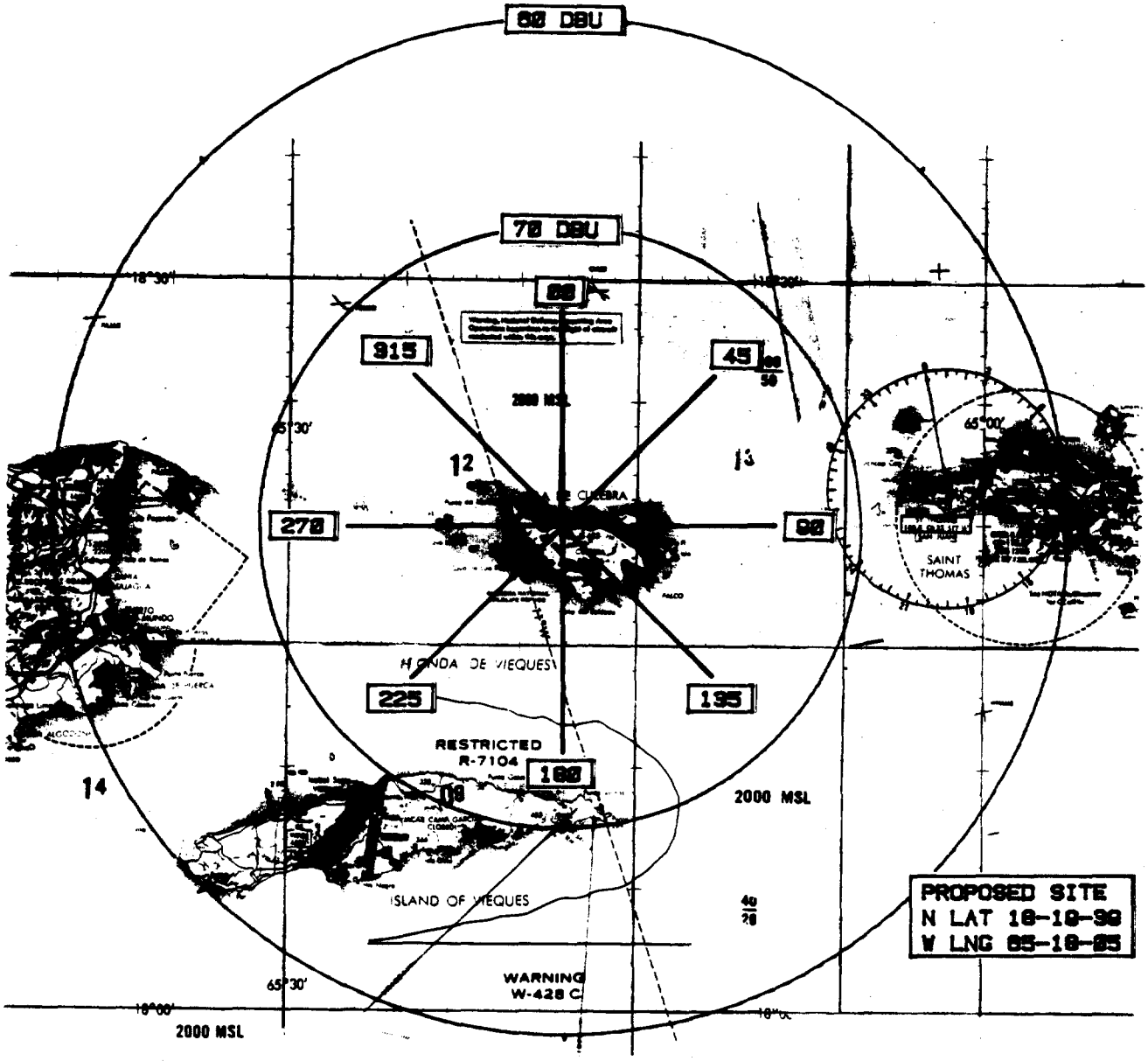


APPROXIMATE MEAN
DECLINATION, 1948


Cayo Raton
Hermanas
Cayo del Agua
Laguna de Cormelo
Cayo Pirat
PLAYA BONITAS


Balcon
FRAILE
Ensenada del Coronel
Cayo Verde
Cayo Pirata
Pta
Puerto
Pta Muleros





PROPOSED CONTOURS

THE MAP IS A REDUCED TERMINAL AERONAUTICAL CHART OF PUERTO RICO AND THE U.S. VIRGIN ISLANDS.

CH 293A IS ALLOCATED TO CULEBRA, PR SINCE CULEBRA IS AN ISLAND ITS LIMITS ARE CLEARLY SHOWN IN THIS EXHIBIT. THE PROPOSED 70 DBU (3.16 MV/M) CONTOUR WILL CLEARLY COVER THE ENTIRE ISLAND.

EXHIBIT #4

NEW FM APPLICATION
CHANNEL 293 - CLASS A
6 KW - 202 METERS HAAT
CULEBRA, PUERTO RICO

OCTOBER 21, 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia Washington, D.C.

RADIO FREQUENCY RADIATION STUDY AND STATEMENT

This Radio Frequency Radiation Study is being conducted to determine whether this proposal is in compliance with OST Bulletin Number 65, dated October 1985, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OST Bulletin.

The proposed antenna system will be mounted with it's center of radiation 48 meters (157.5 feet) above ground and operate with an effective radiated power of 6 kW in both the horizontal and vertical planes. In addition WSAN-FM operates with a 12 bay antenna on the same tower. The WSAN antenna system is mounted with a center of radiation of 75 meters (246.1 feet) above ground and operates with a power of 50 kW in both planes.

Using a worst case calculation we find that the proposed facility will contribute 0.0872 mW or 8.7% of the ANSI limit at two meters, the height of an average person, above the ground at the base of the tower. WSAN contributes 0.4577 mW or 45.8% of the allowable limit. Therefore the combined proposed facility and WSAN will contribute 0.5449 mW or 54.5% of the allowable ANSI limit. Since this is below the defined limit of 100%, this proposal is believed to be in compliance with OST Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will post warning signs in the vicinity of the tower, warning of potential radiofrequency radiation hazards at the site. The applicant will also reduce power of the facility or discontinue operation to limit human exposure to levels less than 1.0 mW/cm^2 should anyone be required to climb the tower for maintenance or inspection.

RFR STATEMENT

EXHIBIT #5

NEW FM APPLICATION
CHANNEL 293 - CLASS A
6 KW - 202 METERS HAAT
CULEBRA, PUERTO RICO

OCTOBER 21, 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia Washington, D.C.

FM BLANKETING CONTOUR CALCULATION

The blanketing contour of NEW - CULEBRA PR is determined using the following formula as defined in §73.318 of the Commission's Rules:

D= 0.394 * SQR(P)
where D= distance to blanketing contour in km
P= ERP in kW of the station

The ERP of NEW - CULEBRA PR is 6 kW yeilding a blanketing contour OF 0.97 km from the tower.

While it is the experience of this firm that very little, if any blanketing interference will be experienced by the grant of this proposal, NEW - CULEBRA PR will follow the guidelines of §73.318 and good engineering practice to satisfy blanketing complaints.

BLANKETING STATEMENT

EXHIBIT #5A
NEW FM APPLICATION
CHANNEL 293 - CLASS A
6 KW - 202 METERS HAAT
CULEBRA, PUERTO RICO

OCTOBER 21, 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia Washington, D.C.

ALLOCATION STUDY FOR CH 293A CULEBRA. PR
USING PROPOSED SITE AS REFERENCE

REFERENCE
18 19 39 N
65 18 05 W

CLASS A
Current rules spacings
CHANNEL 293 -106.5 MHz

DISPLAY DATES
DATA 09-25-91
SEARCH 10-22-91

CALL / TYPE	CH# / LAT / LNG	CITY	STATE / PWR	BEAR' / HT	D-KM / D-Mi	R-KM / R-Mi	MARGIN (KM)
ALOPEN	293A	Culebra	PR	180.7	2.49	115.0	-112.51 *
AD	18 18 18	65 18 06	0.000 kW	0M	1.5	71.5	
	Maria Del Carmen Aviles				RM6940		
>PRM							
WVGN	296A	Charlotte Amalie	VI	84.3	35.03	31.0	4.03
LI CN	18 21 33	64 58 18	1.350 kW	467M	21.8	19.3	
	Sandy Isle Broadcasting, Inc.				BLH850331KF		
>*TO Channel 287B per D86-290							
WNIKFM	293B1	Arecibo	PR	276.2	151.59	143.0	8.59
LI HN	18 28 28	66 43 40	19.500 kW	-82M	94.2	88.9	
	Kelly Broadcasting System Cor				BLH2953		
WVIS	291B	Christiansted	VI	142.5	80.90	69.0	11.90
LI CN	17 44 51	64 50 11	9.000 kW	272M	50.3	42.9	
	V. I. Stereo Communications C				BLH870114KB		
WVIS.C	291B	Christiansted	VI	142.5	80.90	69.0	11.90
CP CN	17 44 51	64 50 11	50.000 kW	288M	50.3	42.9	
	V. I. Stereo Communications C				BPH910627JF		
WMEG	295B	Guayama	PR	253.4	82.85	69.0	13.85
LI CY	18 06 48	66 03 07	25.000 kW	594M	51.5	42.9	
	Guayama Broadcasting Co.				BLH830628AK		

CH 293A ALLOCATION STUDY

EXHIBIT #6
NEW FM APPLICATION
CHANNEL 293 - CLASS A
6 KW - 202 METERS HAAT
CULEBRA, PUERTO RICO

OCTOBER 21, 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.